



UNITED STATES DEPARTMENT OF COMMERCE
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HL

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/833,410	04/04/97	BACHMAT E	98-108

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LM02/0902

EXAMINER
LANIGJAHR, D

ART UNIT
2752

PAPER NUMBER
3

DATE MAILED: 09/02/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/833410

Applicant(s)

Bachmar

Examiner

D. Langjahr

Group Art Unit

2752

☒ Responsive to communication(s) filed on 4-4-97

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-16 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 3-16 is/are allowed.

☒ Claim(s) 1, 2 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claim(s) is/are directed; the following title is suggested: --Effectiveness assessment and size control for a cache memory or portion thereof, using prediction statistics and FIFO or LRU methodology.-- or something similar.

Arrangement of the Specification

3. The following order or arrangement is preferred in framing the specification and, except for the title of the invention, each of the lettered items should be preceded by the headings indicated below.

- (a) Title of the Invention.

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- (b) Cross-References to Related Applications (if any).
- (c) Statement as to rights to inventions made under Federally-sponsored research and development (if any).
- (d) Background of the invention.
 - 1. Field of the Invention.
 - 2. Description of the Related Art including information disclosed under 37 CFR 1.97-1.99.
- (e) Summary of the Invention.
- (f) Brief Description of the Drawing.
- (g) Description of the Preferred Embodiment(s).
- (h) Claim(s).
- (i) Abstract of the Disclosure.

Specifically, related application material is on pages 6 and 7 rather than at the front. This must be updated to show Patent and Trademark Office serial numbers and/or patent numbers, filing dates and status.

4. The specification is objected to because of the following misspelled word; on page 17 line 4, "equation," and page 19 line 8, "during."

5. Claim(s) 5-8, 13, 14 is/are objected to because of the following informalities: in claims 5 and 13 the explanation of H(i, S) is missing. In claim 7, line 5, "miss" is misspelled.

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6. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: the signature is illegible.

Appropriate correction is required for all paragraphs above.

7. Claim(s) 1-16 is/are presented for examination.

8. Claim(s) 3-16 are allowable over the prior art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

9. Claim(s) 1 and 2 is/are rejected under 35 U.S.C. 103 as being unpatentable over Milillo in view of Shih.

Milillo et al., U.S. Patent 5566315 discloses {claim 1} a system for generating an operational assessment of a cache memory in a digital data processing system for respective cache memory sizes and a cache miss prediction element (title) and a cache memory size adjustment element taught as ...the size of the working set of data within the cache memory (C[olumn] 2, L[ine] 56), with file information retrieval activity value implied.

However, Milillo does not particularly and explicitly disclose operational statistics and generating the cache miss prediction value based on a particular one of a plurality of cache memory management methodologies.

Searching the references in closest art, which is analogous art, Shih et al., U.S. Patent 5590308 is found to solve generally similar problems.

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Shih discloses statistics and a methodology in the abstract for the desirable purpose of flexibility. This purpose goes beyond this current implementation, and has application in many fields.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to add the features of Shih to the work of Milillo because this kind of adaptability was/were known at that time to be reasonably pertinent to the art of Milillo for the desirable purpose disclosed above.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 5,495,591 [Ryan] teaches a data processing system which employs a cache memory with both a method for lowering the cache miss ratio for requested operands and an example of special purpose apparatus for practicing the method. Recent cache misses are stored in a first in, first out miss stack, and the stored addresses are searched for displacement patterns thereamong.

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11. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051 (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT");

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

12. Any inquiry concerning this communication or earlier communications
from the examiner should be directed to David Langjahr whose telephone number
is (703) 305-4034 (e-mail address: David.Langjahr@uspto.gov). The examiner can
normally be reached Monday through Thursday from 7:00 AM to 5:30 PM. If
attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Tod Swann, can be reached on (703) 308-7791.

The fax phone number for this Group is (703) 308-6606. It is
recommended that any faxes sent be followed by a voicemail message to (703)
305-4034 stating that a fax has been sent, and by whom. Also, please include a
return phone number.

Any inquiry of a general nature or relating to the status of this
application or proceeding should be directed to the Group receptionist whose
telephone number is (703) 305-3900.

Oel

DCL

August 25, 1998


EDDIE P. CHAN
SUPERVISORY PATENT EXAMINER